Dell OptiPlex 9030 All-in-One

Technical Guidebook

Inside the OptiPlex 9030 All-in-One
SPECIFIC FEATURES/ MODELS/CONFIGURATIONS/OPTIONS DISCUSSED IN THIS DOCUMENT MAY NOT BE AVAILABLE IN ALL REGIONS

July 2014

Dell - Internal Use - Confidential

Table of Contents

OptiPlex 9030 All-In-One 4
Motherboard Layout 6
Marketing System Configurations 7
Operating System 7
Chipset 7
Processor 8
Memory 9
Drives and Removable Storage 10
System Board Connectors 11
Graphics / Video Controller 11
External Ports / Connectors 11
Communications – Network Adapter (NIC) 12
Communications – Wireless 12
Audio and Speakers 12
Keyboards and Mouse 12
Security 13
Software 13
Environmental 13
All-in-One Bacis Stands 14
All-in-One HAS Stands 15
Service and Support 16
Detailed Engineering Specifications 17
System Dimensions (Physical) 17
System Board Connector Maximum Add-in Card Allowable Dimensions 18
System Level Environmental and Operating Conditions 19
POWER 20
Audio 22
Communications – Integrated Realtek RTL8151GD 23
Communications – Wireless 24
Graphics / Video Controller 25
Onboard Graphics 25

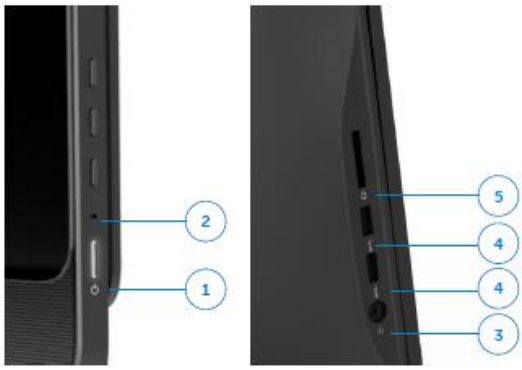
2GB AMD OPAL XT 25
Hard Drives 26
2.5" 500GB SATA5400 RPM HDD 26
2.5" 1000GB SATA 5400 RPM HDD 26
2.5" 500GB SATA 7200/5400 RPM HYBRID HDD 27
2.5" 128GB SATA SOLID STATE DRIVE 28
2.5" 256GB SATA SOLID STATE DRIVE 29
Optical Drives 30
DVD+/-RW 31
DVD-ROM 31
Media Card Reader (MCR) 32
WEBCAM 33
BIOS Defaults 34
CHASSIS ENCLOSURE & VENTILATION REQUIREMENTS 35
ENCLOSURE VENTILATION 38
ENCLOSURE MINIMUM CLEARANCE 38
RECOMMENDED ENCLOSURE 38
OPEN DESK MINIMUM CLEARANCE 38
REGULATORY AND ENVIRONMENTAL COMPLIANCE 38
Acoustic Noise Emission Information 38
OptiPlex 9030 AIO ..... **Error! Bookmark not defined.**
Declared Sound Power (LWAd) 39
A-Weighted Sound Pressure Level (dB) 39

Overview

OptiPlex 9030 All-In-One

Graphics: Application/ Process

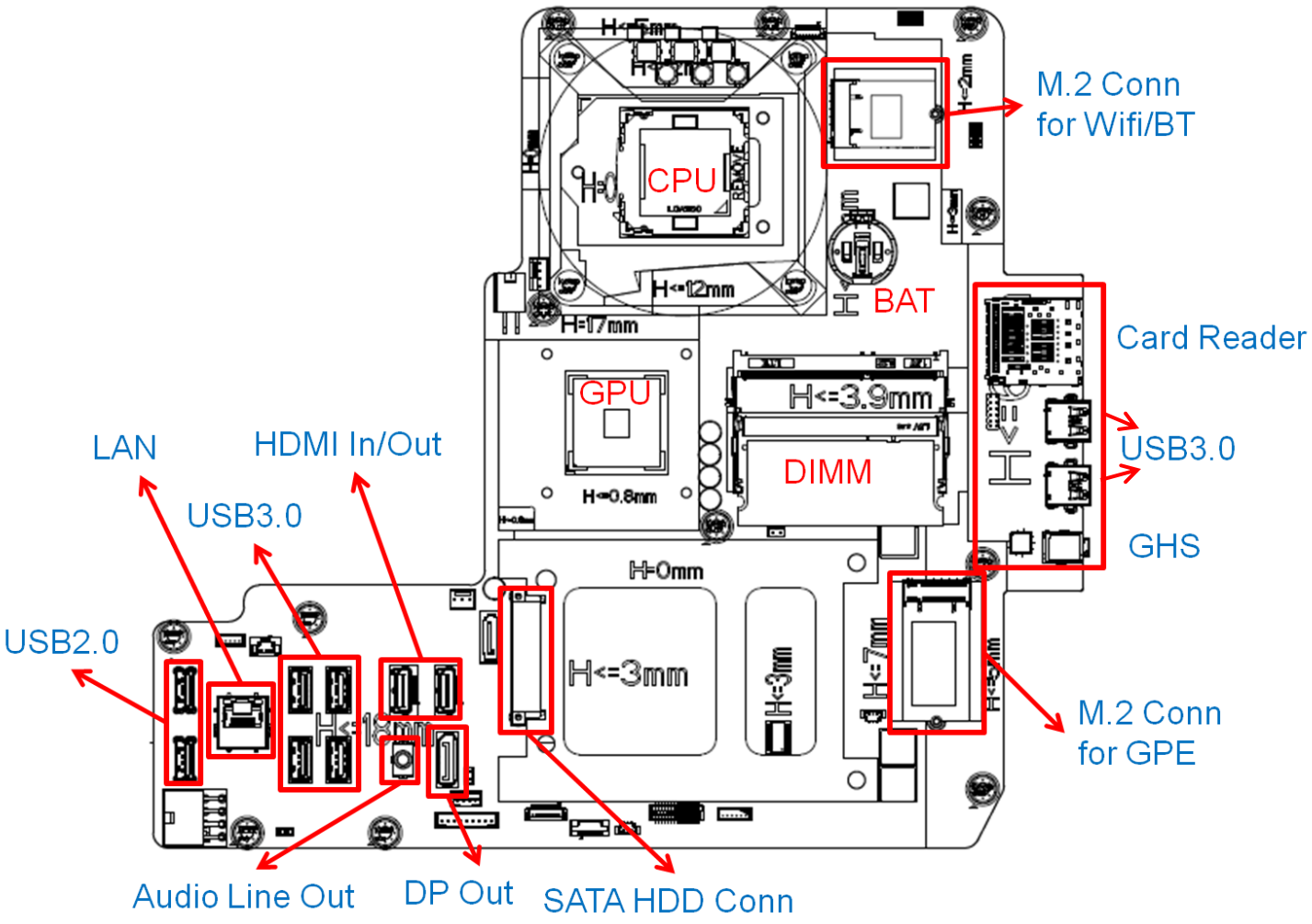
1. Power symbol : Print (Pantone 10395 C)
2. HDD symbol : Print (Pantone 10395 C)
3. Headphone symbol : Print (Pantone 10395 C)
4. 2 USB symbols : Print (Pantone 10395 C)
5. Multi Card Reader symbol : Print (Pantone 10395 C)
6. Camera Privacy Symbols : Print (Pantone 10395 C)
7. Unlock Symbols : Print (Pantone 7578 C)



Lighting

- All illumination needs to be consistent in color, brightness, and distribution. No hot spots are allowed.
- All LED's are white in color
- Power LED is dual color white/amber
- Lighting specifications will be detailed in future revisions of this document.

Motherboard Layout



Marketing System Configurations

NOTE: Offerings may vary by country; not all configurations available in all regions. For more information regarding the configuration of your computer, click Start>Help and Support and select the option to view information about your computer.

Display

	9030 AIO
Screen Size	23"
Resolution	1920x1080
High Definition	Full HD
Display	WLED
Brightness	300nits

Operating System

	9030 AIO
Windows operating system	Microsoft® Windows 8.1 (64 bit) Microsoft® Windows 8.1 Pro (64 bit) Microsoft® Windows 8.1 Pro (64 bit) Downgrade Microsoft® Windows 7 Professional w/MUI SP1 (32 and 64 bit) Microsoft® Windows 7 Professional SP1 (32 and 64 bit)
Other	Ubuntu 12.04 (64bit)
OS Media Support (optional)	Optional

Chipset

	9030 AIO
Chipset	Intel® 8 Series/LynxPoint Q87 Chipset
Non-volatile memory on chipset	
BIOS Configuration SPI (Serial Peripheral Interface)	64Mbit (8MB) & 32Mbit(4MB) located at SPI_FLASH on Motherboard
TPM 1.2 Security Device (Trusted Platform Module)[1]	4KB located at TPM1.2 on chipset
Non-TPM	Available in select countries

NIC EEPROM	LOM configuration contained within SPI_FLASH – no dedicated LOM EEPROM

Processor

NOTE: Global Standard Products (GSP) are a subset of Dell's relationship products that are managed for availability and synchronized transitions on a worldwide basis. They ensure the same platform is available for purchase globally. This allows customers to reduce the number of configurations managed on a worldwide basis, thereby reducing their costs. They also enable companies to implement global IT standards by locking in specific product configurations worldwide. The following GSP processors identified below will be made available to Dell customers.

NOTE: Processor numbers are not a measure of performance. Processor availability subject to change and may vary by region/country.

	9030 AIO
Intel® Core™ i7-4790S QC/8MB/8T/3.2GHz, 65W	X
Intel® Core™ i5-4690S QC/6MB/4T/3.2GHz, 65W	X
Intel® Core™ i5-4590S QC/6MB/4T/3.0GHz, 65W	X
Intel® Core™ i3-4150 DC/3MB/4T/3.5GHz, 54W	X

Memory

NOTE: Memory modules should be installed in pairs of matched memory size, speed, and technology. If the memory modules are not installed in matched pairs, the computer will continue to operate, but with a slight reduction in performance. The entire memory range is available to 64-bit operating systems.

	9030 AIO
Type: DDR3 Synch DRAM Non-ECC Memory	1600 MHz
DIMM Slots	2
DIMM Capacities	Up to 8GB
Minimum Memory	4GB
Maximum System Memory	16GB[1]
16GB[1] DDR3L, 1600MHz, (2 x 8 GB)	X
8GB[1] DDR3L, 1600MHz, (2 x 4GB)	X
4GB[1] DDR3L, 1600MHz, (1 x 4GB)	X

[1] The total amount of available memory will be less than 4GB. The amount less depends on the actual system configuration. To fully utilize 4GB or more of memory requires a 64-bit enabled processor and 64-bit operating system.

Drives and Removable Storage

	9030 AIO
Bays:	
5.25-inch Optical Bay Supported (External)	1
Optical Drives Supported (maximum)	1
Hard Drive Bay Supported (Internal)	1
Hard Drives Supported 2.5" (maximum)	Up to 2
Interface:	
SATA 3.0 for ODD	1
SATA 3.0 for HDD	1
2.5" Hard Drives:	
500GB[1] SATA 5400 RPM HDD	X
1000GB[1] SATA 5400 RPM HDD	X
500GB[1] SATA 5400 RPM HYBRID HDD	X
128GB[1] SATA SOLID STATE DRIVE	X
256GB[1] SATA SOLID STATE DRIVE	X
Optical Drive	
DVD+/-RW[2] SATA	X
DVD-ROM[3] SATA	X
Media Card Reader:	
SD card	X

[1] For hard drives, GB means 1 billion bytes; actual capacity varies with preloaded material and operating environment and will be less.

[2] Discs burned with this drive may not be compatible with some existing drives and players; using DVD+R media provides maximum compatibility.

[3] DVD-ROM drives may have write-capable hardware that has been disabled via firmware modifications.

System Board Connectors

	9030 AIO
M.2 Connectors	2
Serial ATA (SATA) connector	2

Graphics / Video Controller

	9030 AIO
Onboard Graphics:	
Integrated Intel® HD Graphics 4600 (4th generation Core i5/i7 CPUs)	Integrated on CPU
Enhanced Graphic/Video Options:	
2GB AMD RadeonTM R7 A265	On-board (Optional)

External Ports / Connectors

	9030 AIO
Video:	
USB 2.0 (Side/Rear/Internal)	0/2/3
USB 3.0 (Side/Rear/Internal)	2/4/0
Network Connector (RJ-45)	1 Rear
Video:	
HDMI	2 Rear (1 In, 1 Out)
DP 1.2	1 Rear (1 Out)
Audio:	
Line in for universal audio jack	1 Side
Line out for headphones or speakers	1 Rear

Communications – Network Adapter (NIC)

	9030 AIO
Intel® WGI217LM Gigabit1 Ethernet LAN 10/100/1000 (Remote Wake Up, PXE support and Intel Active Management Technology support)	Integrated on system board

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

Communications – Wireless

	9030 AIO
Intel Wireless 7260 M.2 WLAN card (802.11n/ac) with Bluetooth	Optional

Audio and Speakers

	9030 AIO
Realtek ALC3661-CG-A3 Integrated HD Audio Codec	Integrated on system board
AIO internal speaker	Yes

Keyboards and Mouse

	9030 AIO
Dell Wireless Keyboard	Optional
Dell USB Keyboard	Optional
Dell Wireless Mouse	Optional (Bundled with Dell Wireless Keyboard)

Security

	9030 AIO
Trusted Platform Module (TPM) 1.2[1]	Integrated on system board
Chassis Intrusion Switch	Optional
Dell Smart Card Keyboard	Optional
Chassis lock slot and loop support	Standard
Dell Data Protection | Hardware Encryption Engine	Optional
USB Port Cover	Optional
Dell AIO Plate Lock	Optional

[1]TPM is not available in all countries. Depending on your country regulations, no-TPM system boards may be available.

Software

	9030 AIO
Dell Client Manager	Available via Dell.com
Dell Data Protection | Security Tools (DDP|ST)	Standard
Dell Data Protection | Protected Workspace (DDP|PW)	Standard
Dell Data Protection | Encryption (DDP|E)	Optional

Environmental

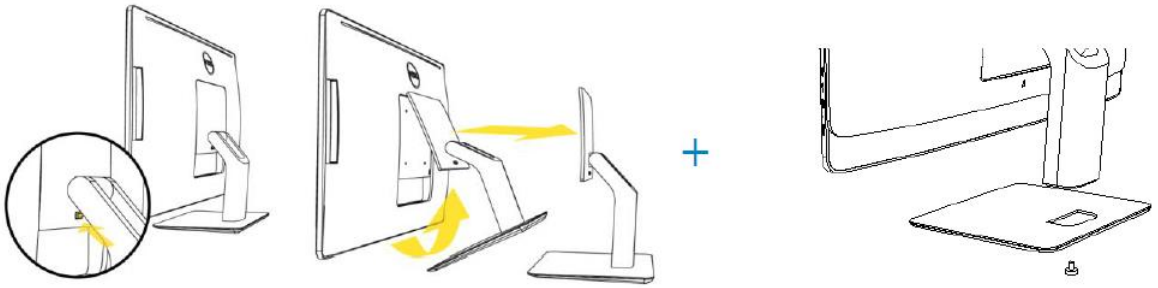
NOTE: For more details on Dell Environmental features, please to go to Environmental Attributes section. See your specific region for availability.

	9030 AIO
Energy Efficient Power Supply	Internal

All-in-One Touch and Non-touch version[1]

[1]Both Touch and Not-touch system can be replaced by Basic and HAS stand.

All-in-One Basic Stands

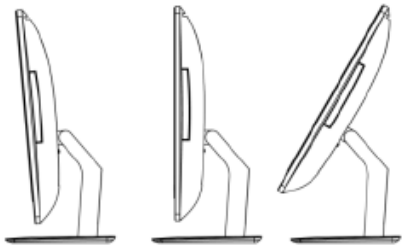


Quick Release

Quick Release button follows Vesa

Detachable Base

Thumb Screw at the bottom

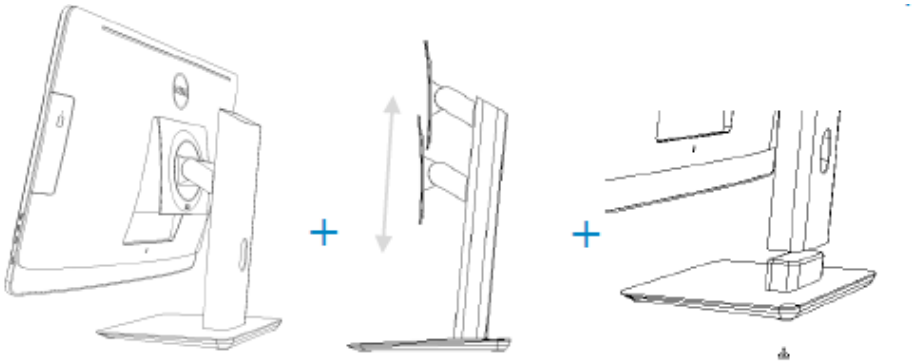


Tilt

Forward -5° to Back 30°

All-in-One HAS Stands (Optional)

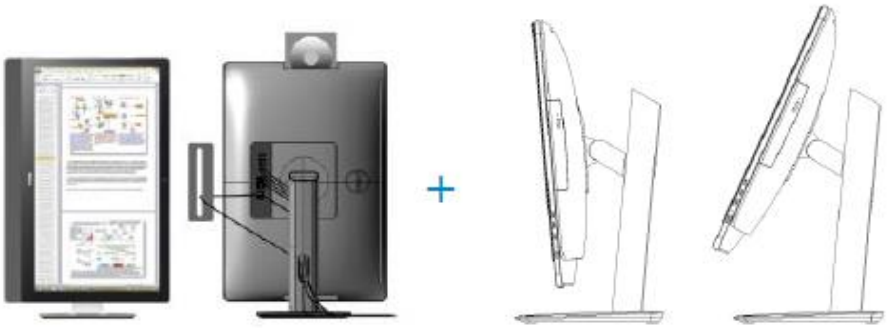
NOTE: Stamping mark on HAS stand VESA plate to distinguish touch and non-touch stand. If there is v check mark beside touch stamping mark represents this is touch HAS stand, vice versa[1].



Quick release
Quick Release button follows vesa

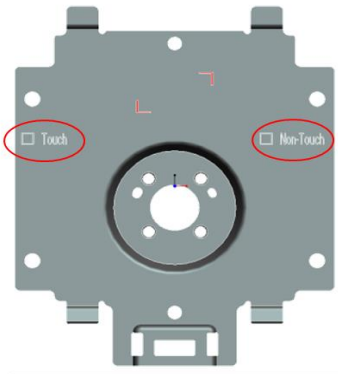
Height Adjustment
100mm height travel

Detachable Base
Thumb Screw at the bottom



Pivot
Bi-directional

Tilt
Forward -5° to Back 30°



[1]There is v check mark on HAS stand VESA plate to distinguish touch and non-touch stand.

Service and Support

NOTE: For more details on Dell Service Plans please to go to: www.dell.com/service/service_plans

	9030 AIO
3 Year Warranty[1] Next Business Day On-site[2] (3-3-3)	Standard
ProSupport	Optional

[1] For a copy of our guarantees or limited warranties, please write Dell USA L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682. For more information, visit www.dell.com/warranty.

[2] Service may be provided by third-party. Technician will be dispatched if necessary following phone-based troubleshooting. Subject to parts availability, geographical restrictions and terms of service contract. Service timing dependent upon time of day call placed to Dell. U.S. only.

Detailed Engineering Specifications

System Dimensions (Physical)

NOTE: System Weight and Shipping Weight is based on a typical configuration and may vary based on PC configuration. A typical configuration includes: integrated graphics, one hard drive, one optical drive.

	9030 AIO
Non-Touch Chassis Weight w/o stand (pounds / kilograms)	16.13 / 7.33
Touch Chassis Weight w/o stand (pounds / kilograms)	18.28 / 8.31
Non-Touch Chassis Dimensions (system w/o stand): (HxWxD)	
Height (inches / centimeters)	14.99 / 38.07
Width (inches / centimeters)	22.34 / 56.75
Depth (inches / centimeters)	2.36 / 6.00
Touch Chassis Dimensions (system w/o stand): (HxWxD)	
Height (inches / centimeters)	14.99 / 38.07
Width (inches / centimeters)	22.34 / 56.75
Depth (inches / centimeters)	2.31 / 5.86
Basic Stand Dimensions	
Width x Depth (inches / centimeters)	8.86 x 8.07 / 22.5 x 20.5
Weight (pounds / kilograms)	4.20 / 1.91
HAS Stand Dimensions	
Width x Depth (inches / centimeters)	9.05 x 8.46 / 23.0 x 21.5
Weight (pounds / kilograms)	5.54 / 2.52
Packaging Parameters (HxWxD—includes basic stand)	
Height (inches / centimeters)	27.27 / 69.28
Width (inches / centimeters)	14.05 / 35.68
Depth (inches / centimeters)	23.37 / 59.37
Non-Touch Chassis Shipping Weight (pounds / kilograms - includes packaging materials w/ Basic Stand)	27.56 / 12.5
Touch Chassis Shipping Weight (pounds / kilograms - includes packaging materials w/ HAS Stand)	30.89 / 14.01

System Board Connector Maximum Add-in Card Allowable Dimensions

	9030 AIO
M.2. Slot (Black) (Voltage supported 3.3V)	3.3V
Height (inches / centimeters)	0.87/2.2
Length (inches / centimeters)	1.18/3
Maximum Wattage	2W

System Level Environmental and Operating Conditions

	9030 AIO
Temperature	
Operating	0° to 35° C (50° to 95° F)
Non-Operating (Storage)	-40° to 65° C (-40° to 149° F)
Relative Humidity	20% to 80% (non-condensing)
Maximum vibration	
Operating	0.26 Grms at 5~350 Hz
Non-Operating	2.2Grms at 5~500Hz
Maximum Shock	
Operating	40G Bottom half-sine pulse with a change in velocity of 49.9cm(19.6inches/sec)
Non-Operating	45G half-sine wave with a change in velocity of 731.5cm(288 inches/sec)
Maximum Altitude	
Operating (for PSU level only)	0 to 5000 m (0 to 16,404 ft)
Non-Operating (for PSU level only)	0 to 5000 m (0 to 16,404 ft)

POWER

NOTE: This machine utilizes a more efficient Active Power Factor Correction (APFC) power supply. Dell recommends only Universal Power Supplies (UPS) based on Sine Wave output for APFC PSUs, not an approximation of a Sine Wave, Square Wave, or quasi-Square Wave. If you have questions, please contact the manufacture to confirm the output type.

	9030 AIO
Power Supply Wattage	185W High Efficiency
AC input Voltage Range	90 – 264Vac
AC input current (low ac range/high AC range)	2.6A / 1.3A
AC input Frequency	47 – 63 Hz
AC holdup time (80% load)	16 mini sec
Average Efficiency (Energy Star 6.0 Compliant)	87 – 90 – 87% @ 20 – 50 – 100% load
Typical Efficiency (Active PFC)	0.95
DC parameters	
+3.3v output	N/A
+5.0v output	N/A
+12.0v output	+12VA – 10.5A & +12VB – 14.5A Note: +12VB Rated at 0.4A when in Standby Mode.
+5.0v auxiliary output	N/A
-12.0v output	N/A
Max total power	185W
Max combined +3.3v / +5.0v power	N/A
Max combined 12.0v power (note: only if more than one 12v rail)	185W
BTUs/h (based on PSU max wattage)	631 BTU
Power Supply Fan	N/A
Compliance	
Erp Lot6 Tier 2 0.5watt requirement	Yes
Climate Savers / 80Plus Compliant	Yes
Energy Star 6.0	Yes
CECP Compliant	Yes

3.0v CMOS battery (Type and estimated battery life)				
Brand	Type	Voltage	Composition	Life
VIC-DAWN	CR-2032	3V	Lithium	Continuous Discharge Under 30 kΩ Load till 2.0V End-Voltage at the temperature of 23°C±3°C. The batteries should be submitted to 150 temperature cycles from 60°C~-10°C, and then be stored for more than 24hours at 23°C±3°C
JHIH HONG	CR-2032	3V	Lithium	Continuous Discharge Under 15 kΩ Load to 2.5V End-Voltage. 20°C±2°C: 940Hrs or longer; 910Hrs or longer after 12 months.
MITSUBISHI	CR2032	3V	Lithium	Continuous Discharge Under 15 kΩ Load to 2.0V End-Voltage. 20°C±2°C: 1000Hrs or longer; 970Hrs or longer after 12 months. 0°C±2°C: 910Hrs or longer; 890Hrs or longer after 12 months.

Audio

INTEGRATED REALTEK ALC3661 HIGH DEFINITION AUDIO	9030 AIO
High Definition Stereo support	X
Number of channels	2
Number of Bits / Audio resolution	16, 20, and 24-bit resolution
Sampling rate (recording/playback)	Support 44.1K/48K/96K/192 kHz sample rates
Signal to Noise Ratio	98 dB DAC outputs, 92 dB for ADC inputs
Analog Audio	X
High Definition Stereo support	X
Audio Jack Impedance	
Microphone	40K ohm~60K ohm
Line-In	N/A
Line-Out	100~150 ohm
Headphone	1~4 ohm
Internal Speaker Power Rating	5Watt (peak) / 3Watt (average)

Communications – INTEGRATED INTEL® WGI217LM GIGABIT

INTEGRATED INTEL® WGI217LM GIGABIT[1]	9030 AIO
External Connector Type	RJ45
Data Rates supported	10/100/1000 Mbps[1]
Controller Details	
Controller bus architecture	PCIe-based interface for S0 state, SMBus for Sx low power state
Integrated memory	N/A
Data transfer mode (example Bus-Master DMA)	N/A
Power consumption (full operation per data rate connection speed)	711mW (Max.)
Power consumption (standby operation)	227mW (Max.)
IEEE standards compliance (example 802.1P)	802.3
Hardware Certifications (example FCC, B, GS mark…)	N/A
Boot ROM Support	EEPROM (located in SPI)
Network Transfer Mode	
Network Transfer Rate (example 10BASE-T (half-duplex) 10 Mbps 10BASE-T (full-duplex) 20 Mbps 100BASE-TX (half-duplex) 100 Mbps 100BASE-TX (full-duplex) 200 Mbps	10 Mb (full/half-duplex) 100 Mb (full/half-duplex) 1000 Mb (full-duplex)
Environmental	
Operating temperature	0° C to 85° C (32° F to 185° F)
Operating humidity	20% to 80% (non-condensing)
Operating System Driver Support	Windows 7 32/64, Windows 8 64
Manageability (examples WOL, PXE)	WOL, PXE 2.1
Management Capabilities Alerting	Intel® Standard Manageability, Intel Haswell Dual/Quad Proc-essor with vPro Technology

[1] This term does not connote an actual operating speed of 1 Gb/sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

Communications – Wireless

INTEL WIRELESS 7260 M.2 PCIe WLAN CARD (802.11 AC) WITH BLUETOOTH	9030 AIO
External Connector Type	Custom WLAN Antenna Connector
Controller Details	
Controller bus architecture	M.2 PCIe (NGFF)
WLAN standards supported	802.11a, 802.11b,802.11g, 802.11n, 802.11ac
802.11ac Data Rates supported	N/A
802.11b Data Rates supported	11, 5.5, 2, 1 Mbps
802.11a Data Rates supported	54, 48, 36, 24, 18, 12, 9, 6 Mbps
802.11g Data Rates supported	54, 48, 36, 24, 18, 12, 9, 6 Mbps
802.11n Data Rates supported	270, 240, 180, 135, 130, 121.5, 120, 117, 108, 104, 90, 81, 78, 65, 60, 58.5, 54, 52, 40.5, 39, 30, 27, 26, 19.5, 13.5, 13, 6.5 Mbps
Encryption	WEP 64-bit and 128-bit, TKIP, AES-CCMP 128-bit
Operating temperature	0-80°C
Operating humidity	NA

Graphics / Video Controller

Onboard Graphics

Onboard Graphics[1] Integrated Intel® HD Graphics 4600 (4th generation Core i5/i7 CPUs)	9030 AIO
Bus Type	Integrated
GPU core clock	Intel® HD Graphics 4600 (4th generation Core i5/i7 CPUs) @ 350MHz
Frame Buffer Memory (onboard and shared) Size and Speed	Depends on available system memory (Up to 1.7GB with 4GB system Memory)
Overlay Planes	Yes
Maximum Color Depth	32 bit
Maximum Vertical Refresh Rate	75 Hz
Multiple Display Support	Yes
Operating Systems Graphics/ Video API Support	OpenGL 4.0/DirectX 11.1
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Up to 1920x1200 @ 60Hz (HDMI) Up to 3840x2160 @ 60 Hz (DP)
External Connectors	HDMI and DP

[1] Up to 1.7 GB of system memory may be allocated to support integrated graphics, depending on operating system, system memory size and other factors.

2GB AMD OPAL XT

2GB AMD OPAL XT (RadeonTM R7 A265)	9030 AIO
Bus Type	Integrated
GPU core clock	650-825MHz
Frame Buffer Memory (onboard and shared) Size and Speed	2GB 900MHz(DDR3)
Overlay Planes	Yes
Maximum Color Depth	32 bit
Maximum Vertical Refresh Rate	75 Hz
Multiple Display Support	Yes
Operating Systems Graphics/ Video API Support	OpenGL 4.1+/OpenCL 1.2+/DirectX 11.1
Supported Resolutions and Max Refresh Rates (Hz) (Note: Analog and/or digital)	Up to 1920x1200 @ 60Hz (HDMI) Up to 3840x2160 @ 60 Hz (DP)
External Connectors	HDMI and DP

Hard Drives

2.5” 500GB SATA5400 RPM HDD

2.5” 500GB SATA 5400 RPM HDD	9030 AIO
Capacity (GB)	500 GB
Dimensions inches (W x D x H)	3.93 x 2.75 x 0.26 inches
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	8 MB
Average Seek Time	12ms
Rotational Speed	5400 rpm
Logical Blocks	512 Bytes
Power Source	
Power Consumption (reference only)	Idle 1.2W, Active 0.7W
Spin Up Current (reference only)	5V (1A)
Environmental Operating Conditions (Non-Condensing)	
Temperature Range	0°C to 60°C
Relative Humidity Range	5% to 95%
Maximum Wet Bulb Temperature	37.7°C
Altitude Range	-1000 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 70°C
Relative Humidity Range	5% to 95%
Maximum Wet Bulb Temperature	40°C
Altitude Range	-1000 ft to 40000 ft

2.5” 1000GB SATA 5400 RPM HDD

2.5” 1000GB SATA 5400 RPM HDD	9030 AIO
Capacity (GB)	1000 GB
Dimensions inches (W x D x H)	3.93 x 2.75 x 0.26 inches
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	8 MB
Average Seek Time	12ms
Rotational Speed	5400 rpm
Logical Blocks	512 Bytes
Power Source	
Power Consumption (reference only)	Idle 1.2W, Active 0.7W
Spin Up Current (reference only)	5V (1A)
Environmental Operating Conditions (Non-Condensing)	
Temperature Range	0°C to 60°C
Relative Humidity Range	5% to 95%
Maximum Wet Bulb Temperature	37.7°C
Altitude Range	-1000 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 70°C
Relative Humidity Range	5% to 95%
Maximum Wet Bulb Temperature	40°C
Altitude Range	-1000 ft to 40000 ft

2.5” 500GB SATA 7200/5400 RPM HYBRID HDD

2.5” 500GB1 SATA 7200/5400 RPM HYBRID HDD	9030 AIO
Capacity (GB)	500 GB
Dimensions inches (W x D x H)	3.93 x 2.75 x 0.26 inches
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	64 MB
Solid State NAND Flash	8 GB
Logical Blocks	512 Bytes
Power Source	
Power Consumption (reference only)	Idle, low power mode 0.9W, Idle Active 1.1W, Idle performance 2.2W
Spin Up Current (reference only)	5V (1A)
Environmental Operating Conditions (Non-Condensing)	
Temperature Range	0°C to 60°C
Relative Humidity Range	5% to 95%
Maximum Wet Bulb Temperature	37.7°C
Altitude Range	-1000 ft to 10000 ft
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 70°C
Relative Humidity Range	5% to 95%
Maximum Wet Bulb Temperature	40°C
Altitude Range	-1000 ft to 40000 ft

2.5" 128GB SATA SOLID STATE DRIVE

2.5" 128GB1 SATA SOLID STATE DRIVE	9030 AIO
Capacity (GB)	128 GB
Dimensions inches (W x D x H)	3.94 x 2.74 x 0.27 inches
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	> 1,500,000 hours
Average Seek Time	n/a
Logical Blocks	250,069,680 Byte
Power Source	
Power Consumption (reference only)	Idle: 0.7W, Active: 2.5W
Spin Up Current (reference only)	n/a
Environmental Operating Conditions (Non-Condensing)	
Temperature Range	0°C to 70°C
Relative Humidity Range	5 to 95%
Maximum Wet Bulb Temperature	n/a
Altitude Range	n/a
Op Shock (@0.5ms)	1,500G
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 85°C
Relative Humidity Range	5 to 95%
Maximum Wet Bulb Temperature	n/a
Altitude Range	n/a

2.5" 256GB SATA SOLID STATE DRIVE

2.5" 256GB1 SATA SOLID STATE DRIVE	9030 AIO
Capacity (GB)	256 GB
Dimensions inches (W x D x H)	3.94 x 2.74 x 0.27 inches
Interface type and Maximum speed	Up to 6Gb/s (SATA 3.0)
Internal buffer size	> 1,500,000 hours
Average Seek Time	n/a
Logical Blocks	500,118,192 Byte
Power Source	
Power Consumption (reference only)	Idle: 0.7W, Active: 2.5W
Spin Up Current (reference only)	n/a
Environmental Operating Conditions (Non-Condensing)	
Temperature Range	0°C to 70°C
Relative Humidity Range	5 to 95%
Maximum Wet Bulb Temperature	n/a
Altitude Range	n/a
Op Shock (@0.5ms)	1,500G
Environmental Non-Operating Conditions (Non-Condensing):	
Temperature Range	-40°C to 85°C
Relative Humidity Range	5 to 95%
Maximum Wet Bulb Temperature	n/a
Altitude Range	n/a

Optical Drives

DVD+/-RW

DVD+/-RW	9030 AIO
External Dimensions inches/centimeters (Without Bezel – W x H x D)	128 mm (5.04 in)/ 9.5 mm (0.37 in)/ 127 mm (5 in)
Weight (max) pounds/kilograms	140g +/- 5g
Interface type and speed	SATA 1.5Gbit/s
Disc Capacity	Standard
Internal buffer size	supplier dependent
Access Times (typical)	supplier dependent
Maximum Data Transfer Rates	
Writes	8x DVD / 24x CD
Reads	8x DVD/ 24x CD
Power Source	
DC Power Requirements	5V
DC Current	1.3A (Max)
Environmental Operating Conditions (Non-Condensing)	
Operating Temperature Range	5°C to 50°C
Relative Humidity Range	20% to 80% RH
Maximum Wet Bulb Temperature	29°C
Altitude Range	-200 to 3048
Environmental Non-Operating Conditions (Non-Condensing)	
Operating Temperature Range	-40°C to 65°C
Relative Humidity Range	5% to 95% RH
Maximum Wet Bulb Temperature	38°C
Altitude Range	-200 to 10600m

DVD-ROM

DVD-ROM	9030 AIO
External Dimensions inches/centimeters (Without Bezel – W x H x D)	128 mm (5.04 in)/ 9.5 mm (0.37 in)/ 127 mm (5 in)
Weight (max) pounds/kilograms	140g +/- 5g
Interface type and speed	SATA 1.5Gbit/s
Disc Capacity	Standard
Internal buffer size	supplier dependent
Access Times (typical)	supplier dependent
Maximum Data Transfer Rates	
Writes	N/A
Reads	8x DVD/ 24x CD
Power Source	
DC Power Requirements	5V
DC Current	1.3A (Max)
Environmental Operating Conditions (Non-Condensing)	
Operating Temperature Range	5C to 50C
Relative Humidity Range	20% to 80% RH
Maximum Wet Bulb Temperature	29C
Altitude Range	-200 to 3048m
Environmental Non-Operating Conditions (Non-Condensing)	
Operating Temperature Range	-40C to 65C
Relative Humidity Range	5% to 95% RH
Maximum Wet Bulb Temperature	38C
Altitude Range	-200 to 10600m

Media Card Reader (MCR)

MEDIA CARD READER	9030 AIO
Media Supported (maximum capacity supported will vary by Flash Media Types)	
Media Supported	Secure Digital (SD) SDXC SDHC SD-UHS-I (UHS104) SD-UHS-II Multi Media Card (MMC)
Support Specification Versions:	Multi Media Card (MMC) Specification 4.41 Secure Digital (SD) 4.0
Power Source	
Max Power Requirements	2.5W
Supply Voltage Range	3.135V ~ 3.465V
Power Consumption	Standby less than 0.5mA @ 5.0VDC
Environmental Operating Conditions (Non-Condensing)	
Operating Temperature Range	5°C to 50°C
Relative Humidity Range	10% to 90% RH
Environmental Non-Operating Conditions (Non-Condensing)	
Operating Temperature Range	-40°C to 65°C
Relative Humidity Range	5% to 95% RH

WEBCAM

WEBCAM	9030 AIO
Maximum Resolution	2.0MP
Video Resolution	FHD (1080p)
Diagonal Viewing Angle	74.9°

BIOS Defaults

General	System Information	Information Only
	Boot Sequence	Boot Sequence: Enable (Diskette Drive, Internal HDD, USB Storage Device, CD/DVD/CD-RW Drive), Disable (Onboard NIC) Boot List Option: Enable (Legacy)
	Advanced Boot Options	Enable Legacy Option
	Date/Time	Information Only
System Configuration	Integrated NIC	Disable UEFI Network Stack, Enable w/PXE
	SATA Operation	RAID on
	Drives	Enable (SATA-0, SATA-1)
	SMART Reporting	Disable
	USB Configuration	Enable (Boot Support, Rear USB ports, Side USB ports)
	Audio	Enable (Audio, Microphone, Internal speaker)
	OSD Button Management	Enable OSD Buttons
	Miscellaneous Devices	Enable (Camera, Media Card)
Security	Admin Password	Optional User Entry
	System Password	Optional User Entry
	Internal HDD-0 Password	Optional User Entry
	Strong Password	Disable
	Password Configuration	4~32
	Password Bypass	Disabled
	Password Change	Enable
	TPM Security	Disable
	Computrace®	Deactivate
	Chassis Intrusion	Enable
	CPU XD Support	Enable
	OROM Keyboard Access	Enable
	Admin Setup Lockout	Disable

	HDD Protection Support	Disable
Secure Boot	Secure Boot Enable	Disabled
	Expert Key Management	Disable Custom Mode Custom Mode Key Management : PK
Performance	Multi Core Support	All
	Intel® SpeedStep™	Enable
	C-States Control	Enable
	Limit CPUID Value	Disable
	Intel® TurboBoost™	Enable
	HyperThread control	Enabled
	Rapid Start Technology	Disable
Power Management	AC Recovery	Power Off
	Auto On Time	Disabled
	Deep Sleep Control	Enabled in S4 and S5
	Fan Control Override	Disabled
	USB Wake Support	Enabled
	Wake on LAN/WLAN	Disabled
	Block Sleep	Disabled
	Intel® Smart Connect Technology	Disable
POST Behavior	Numlock LED	Enable
	Keyboard Errors	Enable
	Fastboot	Thorough
	MEBx Hotkey	Enable
Virtualization Support	Virtualization	Enable
	VT for Direct I/O	Enable
	Trusted Execution	Disable

Wireless	Wireless Device Enable	Enable (WLAN/WiGig, Bluetooth®)
Maintenance	Service Tag	Set by the factory
	Asset Tag	Optional User Entry
	SERR Messages	Enable
Cloud Desktop	Server Lookup Method	DNS
	Server Name	CDServer
	Server IP Address	255.255.255.255
	Server Port	06910
	Client Address Method	DHCP
	Client IP Address	255.255.255.255
	Client Subnet Mask	255.255.255.255
	Client Gateway	255.255.255.255
	DNS IP Address	255.255.255.255
	Domain Name	Optional User Entry
	Advanced	Disable Verbose Mode
System Logs	BIOS Events	Information Only

CHASSIS ENCLOSURE & VENTILATION REQUIREMENTS

ENCLOSURE VENTILATION

If your enclosure has doors, they need to be of a type that allows at least 30% airflow through the enclosure (front and back).

ENCLOSURE MINIMUM CLEARANCE

Leave a 14 cm (5.5 in.) minimum clearance on all vented sides of the computer which has ODD configuration to permit the airflow required for proper ventilation. And for computer without ODD configuration, it needs to leave a 10 cm (3.9 in.) minimum clearance on all vented sides.

RECOMMENDED ENCLOSURE

Do not install your computer in an enclosure that does not allow airflow. This restricts the airflow and impacts your computer's performance, possibly causing it to overheat.

OPEN DESK MINIMUM CLEARANCE

If your computer is installed in a corner, on a desk, under a desk, or hang on wall by VESA mount, leave at least 5.1 cm (2 in.) clearance from the back of the computer to the wall to permit the airflow required for proper ventilation.

REGULATORY AND ENVIRONMENTAL COMPLIANCE

Product related conformity assessment and regulatory authorizations including Product Safety, Electromagnetic Compatibility (EMC), Ergonomics, and Communication Devices relevant to this product may be viewed at www.dell.com/regulatory_compliance. The Regulatory Datasheet for this product is located at http://www.dell.com/regulatory_compliance.

Details of Dell's environmental stewardship program to conserve product energy consumption, reduce or eliminate materials for disposal, prolong product life span and provide effective and convenient equipment recovery solutions may be viewed at www.dell.com/environment. Product related conformity assessment, regulatory authorizations, and information encompassing Environmental, Energy Consumption, Noise Emissions, Product Materials Information, Packaging, Batteries, and Recycling relevant to this product may be viewed by clicking the Design for Environment link on the webpage.

Acoustic Noise Emission Information

Declared Sound Power (LWAd)

The Declared Noise Emission in accordance with ISO 9296 for the Dell OptiPlex 9030 AIO is as follows: (all values LWAd expressed in bels; 1 bel=10 decibels, re 10^{-12} Watts)

A-Weighted Sound Pressure Level (dB)

The Declared A-weighted Sound Pressure Level in decibels (re 2x10-5 Pa), at Operator and Bystander Positions are measured in accordance with ISO 7779 7.6.1, 7.6.2, and C.15.2 and declared in accordance with ISO 9296 for this product is as follows[1]:

Service Level	Sound Power (LWAd, bels) (1 bel=10 deci-bels, re 10-12 Watts)	Sound Pressure Operator Position (LpAm, decibels) (re 2x10-5 Pa)	Sound Pressure Bystander Position (LpAm, decibels) (re 2x10-5 Pa)
Hard Drive Accessing	3.9	25.7	22.4
Optical Drive Accessing	4.4	32.0	28.6
Idle	3.8	25.3	22.2
CPU activated (at a utilization of 50%) ECMA-74	3.9	28.6	25.9

[1] All tests are conducted according to ISO 7779 and declared according to ISO 9296 except CPU Stressed. This test mode is not specified in ISO 7779, but was measured using the same microphone distances and measurement techniques defined for the other reported operating modes.

[2] Declared Sound Power rounded to nearest tenth of a bel per ISO 9296 section 4.4.2